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CAN ALL ANTITAKEOVER AMENDMENTS BE TREATED EQUALLY?: AN EMPIRICAL EXAMINATION[1]

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CAN ALL ANTITAKEOVER AMENDMENTS BE TREATED EQUALLY?: AN EMPIRICAL EXAMINATION

ABSTRACT

This paper examines the relationship between the passage of six types of corporate charter antitakeover amendments (supermajority, classified boards, fair price, reduction in cumulative voting, anti-greenmail and poison pills) and stockholder wealth. Our event study from a sample of 379 firms that adopted 483 antitakeover amendments in the 1984-1988 period indicates a strongly negative effect on stockholder wealth in support of the managerial entrenchment hypothesis that antitakeover amendments are adopted by managers at the expense of stockholders. In addition, we find that stockholders react equally negatively to both nonoperating amendments that require stockholder approval and to operating amendments that do not require stockholder approval. However, separate analyses of the amendments provide some support for the argument that stockholders discriminate between individual amendments.

CAN ALL ANTITAKEOVER AMENDMENTS BE TREATED EQUALLY?: AN EMPIRICAL EXAMINATION

Corporate governance researchers are primarily interested in governance mechanisms that reduce the agency costs of separation of ownership from control (Zahra & Pearce, 1989). Researchers are increasingly focusing attention on understanding the effectiveness of these mechanisms within specific governance contexts (Baysinger, Kosnik & Turk, 1991; Cochran, Wood, & Jones, 1985; Kosnik, 1987, 1990; Singh & Harianto, 1989) including the adoption of antitakeover amendments (Davis, 1991; Rechner, Sundaramurthy & Dalton, In Press). Antitakeover amendments are changes to a company's corporate charter intended to discourage a hostile bidder from taking control of the company. The adoption of antitakeover amendments is an ideal governance context primarily because the adoption of amendments is assumed in the management literature to be detrimental to stockholders' interests. For instance, Kesner and Dalton (1985: 25) note: "The antitakeover game appears thoroughly one-sided. Management fights fiercely to defend against the takeover, but there is very little the stockholder can do to prevent these defenses. Therefore, it has been suggested that the 'score' in the antitakeover game is Management 42, Stockholders 0." It is important to empirically test the assumption that the adoption of antitakeover amendments, a move in the antitakeover game, adversely affects stockholder welfare.

The relationship between amendment adoption and stockholder wealth has received modest empirical attention from financial economists. They examine stock price effects of the announcement of new information related to antitakeover amendment proposals, and interpret an average increase in stock price as a positive effect of antitakeover amendments. Conversely, an average decrease in stock price is a negative effect of antitakeover amendments. Results of studies that examine stockholder wealth effects of antitakeover amendments are mixed.

DeAngelo and Rice (1983) find no significant relationship between amendment adoption and stock value, whereas Linn and McConnell (1983) report a weak positive relationship, and Jarrell and Poulsen (1987) find a negative relationship between amendment adoption and stock price. Mahoney and Mahoney (1992) indicate one reason for mixed results is the time period during which amendments were passed. They demonstrate that amendments adopted in the early 1970s have positive stock price impacts, and those adopted in the 1980s, during the takeover boom, have negative stock price impacts. Some of the explanations they offer for the negative trend over time in the effect of antitakeover amendments include: changes in the composition of stockholders (i.e., an increase in control by institutional investors[2] [Chaganti & Damanpour, 1991]), learning over time by stockholders (i.e., stockholders may update their expectations of the effects of an antitakeover amendment after seeing the effects on firms which have already passed them), changes in the structure of the takeover market[3] (e.g., a more competitive takeover market would decrease the overall benefits of antitakeover amendments), and changes in the types of management which propose antitakeover amendments (e.g., perhaps early antitakeover amendments were proposed by responsible managers who acted in the best interests of stockholders but more recent amendments have been proposed by self-interested managers who propose the amendments despite the negative stock price effect).

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[2] As Graves & Waddock note: "In the computer industry, institutional ownership has grown from 16 percent of common equity in 1976 to almost 50 percent in 1984; in the chemical industry, from 15 percent of equity in 1976 to 52 percent in 1984; and in aerospace, from 10 percent in 1976 to 34 percent in 1984. In 1984 institutional investors held about 60 percent of all shares of U.S. corporations" (1990: 76).

[3] Many changes in the takeover market may have caused antitakeover amendments to have a relatively larger effect on stockholder wealth in the 1980s relative to the 1970s. For example, state antitakeover laws have been largely invalidated since 1982, and antitrust impediments have been reduced for the merger of large firms and between competitors since 1980 (Jarrell & Poulsen, 1987).

While there is some agreement in the governance literature about overall negative effects of antitakeover amendments (Kesner & Dalton, 1985; Mallette, 1991), we know little about amendments' differential impact on stockholder welfare. Mallette suggests that: "some antitakeover amendments may be more effective or have more of an impact (on stock prices and future competitive position) than others" (1991: 783). An empirical issue that remains unexamined is the validity of treating all amendments equally from a governance perspective. Does each amendment have a negative impact on stockholder wealth? More importantly, do some amendments have more negative impact than others? An understanding of these issues is imperative, given that governance researchers assume that all amendments can be treated equally (Kesner & Dalton, 1985; Mallette, 1991; Rechner, Sundaramurthy & Dalton, In Press).

The current study examines stockholder wealth effects of the adoption of six antitakeover amendments including supermajority, classified board, fair price, reduction in cumulative voting, anti-greenmail and poison pill provisions. Each of these provisions is explained in a later section of the paper. The main purpose of our study is to understand if different groups of amendments have differential effects on stockholder wealth. Based on Walsh and Seward's (1990) theoretical framework of firms' takeover defenses, we distinguish between amendments and test their differential stockholder wealth effects. We test the assumption that all antitakeover amendments are equally harmful to stockholders.

THEORETICAL PERSPECTIVES OF STOCKHOLDER WEALTH EFFECTS OF ANTITAKEOVER AMENDMENTS

Two competing theoretical perspectives drive the research addressing stockholder wealth effects of the adoption of antitakeover amendments. One view is that amendments benefit stockholders and is known in the literature as the "stockholder interests hypothesis" (Berkovitch, Bradley & Khanna, 1989; Berkovitch & Khanna, 1990; DeAngelo & Rice, 1983; Grossman & Hart,

1980). A competing viewpoint known as the "management entrenchment hypothesis" is that antitakeover amendments are not in stockholders' best interests (Easterbrook & Fischel, 1981; Jarrell & Poulsen, 1987).

Stockholder Interests Hypothesis. According to the stockholder interests hypothesis, stockholders would react positively to amendment adoption for two reasons. First, the adoption of antitakeover amendments effectively creates a long-term contract with the current management team and may encourage them to make firm-specific capital investments and long-term investments which are in the long-run best interest of stockholders (Baysinger & Butler, 1985)[4]. Second, antitakeover amendments provide corporate management additional veto power in takeover situations and enable them to negotiate better deals on average for their stockholders (DeAngelo & Rice, 1983). Linn and McConnell (1983) provide empirical support for the stockholder interests hypothesis.

Management Entrenchment Hypothesis. According to the management entrenchment view, antitakeover amendments protect inefficient incumbent management that may indulge in shirking (Jensen & Meckling, 1976), featherbedding (Myers, 1983), and maintaining short time horizons, each of which results in a present-value loss for the firm (Hayes & Wheelwright, 1984; Jensen & Meckling, 1979). Those who subscribe to the "management entrenchment" view also contend that antitakeover amendments reduce the probability of a firm receiving valuable takeover offers from alternative management teams (Pound, 1985, 1987), exacerbating the agency problem of the separation of ownership and control (Easterbrook & Fischel, 1981; Schwartz, 1989). Hence, a negative relationship between amendment adoption and stockholder returns is expected. Several

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[4] Pugh, Page and Jahera (1992) provide empirical support that upon passage of antitakeover amendments, managers adopt a longer-term view with respect to capital expenditure and research and development. However, Mallette (1991) finds no such relationship and Meulbroek, Mitchell, Mulherin, Netter and Poulsen (1990) find a significantly negative relationship between a firm's adoption of antitakeover amendments and subsequent research and development expenditures.

papers support the entrenchment view (e.g., Jarrell & Poulsen, 1987; Mahoney & Mahoney, 1992; Ryngaert, 1988).

DIFFERENCES AMONG AMENDMENTS

Studies testing competing hypotheses generally do not draw a distinction among amendments (DeAngelo & Rice, 1983; Linn & McConnell, 1983). They assume that all the examined amendments have either a positive or negative impact on stockholder wealth. Jarrell and Poulsen (1987), however, distinguish between fair price requirements (described below) which had little impact on stock value, and other amendments which had a significantly negative effect on stockholder wealth. These results call into question the assumption that all amendments are equally harmful to stockholders.

Walsh and Seward (1990) subscribe to the entrenchment view, but differentiate among takeover defense actions. Walsh and Seward (1990) provide a useful theoretic framework to classify different managerial takeover defenses, and we use their taxonomy to classify six antitakeover amendments. The following discussion provides a summary of Walsh and Seward's (1990) framework and a discussion of six antitakeover amendments within the context of their framework.

Walsh and Seward (1990) use two dimensions to classify takeover actions of firms. They distinguish between operating and nonoperating measures, and between measures that require stockholder approval and those that do not. Using these two dimensions, Walsh and Seward (1990) classify firms' takeover defenses into a two-by-two matrix.

Operating measures are those that result in changes in a firm's assets, financial structure or both. For example, managers of a firm may repurchase a large block of shares from a bidder to prevent the firm from being taken over (i.e., managers pay greenmail). This purchase will be reflected in the company's balance sheet and is classified as an operating measure. Nonoperating

measures do not involve a change in a firm's balance sheet but nonetheless are believed to affect adversely the probability of a successful takeover effort. For example, firms can change their charters to restrict the voting rights of stockholders. These charter changes are viewed as nonoperating measures as they do not affect the balance sheet.

Another dimension on which Walsh and Seward (1990) categorize takeover defense measures is whether or not a measure requires stockholder approval. For instance, payment of greenmail does not require stockholder approval, whereas restriction of stockholder voting rights requires stockholder approval.

Walsh and Seward contend that: "shareholders are usually harmed more by operating than nonoperating defensive measures" (1990: 439). The rationale for this argument is that nonoperating measures are less costly to reverse than operating measures. With regard to whether an amendment requires stockholder approval or not, they indicate that: "Theoretically actions taken by management that do not require stockholder approval may be particularly damaging to shareholder interests [when compared to actions that require shareholder approval]" (1990: 438).

Using these two dimensions, Walsh and Seward (1990) classify different takeover defenses into a two-by-two matrix. The six antitakeover amendments considered in our study can be categorized as falling in one of the four cells as shown in Table 1.

Insert Table 1 about here

DESCRIPTION OF ANTITAKEOVER AMENDMENTS

Nonoperating Amendments That Require Stockholder Approval. Supermajority, classified board, fair price, reduction in cumulative voting and anti-greenmail provisions each belong to cell 2

of Table 1 since each of these amendments almost always require the approval of a majority vote by stockholders and each amendment is nonoperating as they do not alter the balance sheet.

Supermajority merger approval provisions typically stipulate stockholder approval percentages in the 66-80 percent range. Various supermajority stockholder approval requirements may block a bidder from implementing a merger even when the bidder controls the target's board of directors since stockholder approval may remain below the specified percentage. Supermajority amendments also typically include escape clauses applicable to actions such as mergers with a firm's subsidiary. If the board is able to determine when and if the supermajority provisions will be in effect, the amendment is said to have a board-out clause (Linn & McConnell, 1983).

Classified board provisions segment (or stagger) the board of directors into classes with one class standing for election each year. Typically, with a classified board provision, one-third of the board is elected each year for a three-year term. With a classified board, a new majority stockholder would have to wait for two annual meetings to attain majority representation on the board before being guaranteed a successful proposal of a merger for stockholder vote (DeAngelo & Rice, 1983). Amendments to classify the board are often accompanied by a supermajority stockholder approval requirement in order to change the number of directors, thereby inhibiting a bidder from expanding the board and thus taking control by electing candidates to the newly created board positions.

The fair-price amendment requires supermajority voting approval by stockholders for transfer of control if the bidder does not offer a "fair price". Usually, the fair price is defined as the highest price paid by the bidder for any shares acquired in the target firm during a specified period or some premium over market price. The amendments are effective mainly against hostile two-tier tender offers because hostile bidders can avoid the supermajority requirement of the fair price amendment by making a uniform offer for all outstanding shares (Jarrell & Poulsen, 1987).

Reduction in cumulative voting restricts the rights of stockholders to accumulate their votes in favor of a particular director or board of directors. The number of votes to which a stockholder is entitled is the number of shares owned multiplied by the number of directors to be elected in a given year. Therefore, with cumulative voting it may be possible for minority stockholders to elect some board members even if the majority of stockholders oppose their election. A reduction in cumulative voting rights reduces the minority stockholders' ability to elect their nominees as directors (Bhagat & Brickley, 1984) and thus makes the firm a less desirable takeover target.

Anti-greenmail provisions are amendments to the corporate charter which prohibit payment of greenmail[5]. Greenmail involves private repurchase of a sizeable block of company stock at a premium. These transactions often occur under the explicit or rumored threat of takeover by a substantial stockholder or stockholders (Bagwell, 1991; Macey & McChesney, 1985). In exchange for a premium above market price, the raider[6] agrees not to acquire the firm and displace incumbent management (Dann & DeAngelo, 1983). Often this transaction is followed by a standstill agreement whereby the raider also agrees not to acquire stock in the concerned company for a specified period of time, often for as long as five years (Shleifer & Vishny, 1986). Typical anti-greenmail charter amendments prohibit firms from repurchasing some or all of the common (voting) stock of an

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[5] In 1984, for example, American corporations spent over $3.5 billion to repurchase their securities from unwanted stockholders at premiums totaling over $600 million above market prices (Harvard Law Review, Vol. 98 (1985), p. 1045).

[6] Well known cases of greenmail include: (a) Walt Disney Productions payed $325 million for Saul Steinberg's 4.2 million shares of common stock, an average of $14.25 per share more than he paid originally; (b) Rupert K. Murdoch received a 35 percent premium for his shares of Warner Communications; (c) The Bass brothers netted $400 million after Texaco bought back their 10 percent stake at $5 per share premium; (d) T. Boone Pickens purchased a large portion of Gulf's outstanding shares and later sold them back at a premium; (e) Carl Icahn used greenmail techniques with such companies as Saxon Industries, Hammermill Paper Company, Gulf & Western, American Can Company, Marshall Field and ACF Industries (Kesner & Dalton, 1985).

"interested" stockholder, normally defined as a stockholder who owns 5% or more of the outstanding common stock and who acquired this ownership within the past three years (Eckbo, 1990).

Operating Amendment That Does Not Require Stockholder Approval. Poison pills belong to cell 3 of Table 1 as they are operating measures and do not require stockholder approval. Poison pill provisions, a recent phenomena[7], provide target stockholders the right to purchase additional shares at a discount or to sell shares to the target at very attractive prices. The target stockholders' right to purchase at a discount is known as a flip-over plan. Under the flip-over plan, the firm declares a common stock dividend in the form of rights to purchase some class of its own securities, usually common stock. The rights' exercise price is set far above the market price of the underlying security. For example, Crown Zellerbach's common stock purchase rights had an exercise price of $100 per share while Crown common stock traded at $30 per share (Maletesta & Walkling, 1988). If an acquirer merges with the firm, the rights "flip over" and holders are entitled to purchase shares in the surviving firm at a substantial discount from the post-merger market price, typically 50% (MacMinn & Cook, 1991). In our example, if the rights' exercise price is $100 and the surviving firms' stock when the merger is consummated trades at $50 per share, each right entitles its holders to purchase 4 shares of stock for $100.

In the more potent flip-in plan, the mere acquisition of a threshold stake (usually between 10% and 20%) enables the rights' holders to purchase additional shares of the target firm at a discount (Choi, Kamma & Weintrop, 1989). The intended result is that no one dares to pass the flip-in triggering percentage, and bidders are forced to negotiate with target boards (Herzel & Shepro, 1990). The right to sell shares to the target at an attractive price is called a back-end plan (Ryngaert, 1988). Back-end plans are so named because they attempt to place a specific minimum price on the

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[7] Prior to the Delaware court decision in 1985 that upheld the legality of the plans, there were only three such plans (Ruback, 1988).

back-end of a two-tier acquisition bid (Malatesta & Walkling, 1988). Now let us consider the stockholder wealth effects of six corporate charter amendments in relation to Walsh and Seward's (1990) synthesis of organization theory and the agency literature (Berle & Means, 1932; Eisenhardt, 1989; Jensen & Meckling, 1976; Oviatt, 1988).

RESEARCH HYPOTHESES

Walsh and Seward's (1990) framework implies theoretically that takeover defense actions can be viewed as a continuum with one end representing the most harmful amendments from the stockholders' viewpoint and the other end representing the least harmful amendments. Actions in cell 3 of Table 1 are predicted to be the most harmful actions, as they are operating measures and do not require stockholder approval. As mentioned earlier, operating measures are expected to be more harmful than nonoperating measures, and measures that do not require stockholder approval are more harmful than those that do. Cell 2 represents actions that are predicted to be least harmful from stockholders' viewpoint as they are nonoperating measures and require stockholder approval. Cells 1 and 4 represent actions that fall between the two ends in their predicted effect on stockholder wealth.

The six antitakeover amendments considered in this study fall in cells 2 and 3, which represent actions that fall in two ends of the continuum described (see Table 1). If actions in cell 3 (operating measures that do not require stockholder approval) are more harmful than actions in cell 2 (nonoperating measures that require stockholder approval), one would expect stockholders to react more negatively to the former than to the latter. Moreover, if differences in effects on stockholder wealth exist among amendments, one can expect the most difference in stockholder reactions by comparing actions in these two cells, as they represent two ends of the continuum.

The above discussion leads to two hypotheses. The first hypothesis is that the managerial entrenchment hypothesis holds for all antitakeover amendments; and the second hypothesis makes a distinction between amendments in cell 2 compared to cell 3:

Hypothesis 1

Stockholders are likely to react negatively to the adoption of each and every antitakeover amendment.

Hypothesis 2

Stockholders are likely to react more negatively to the adoption of operating amendments that do not require stockholder approval (poison pills) than to the adoption of nonoperating amendments that require stockholder approval (i.e., supermajority requirements, classified boards provisions, fair price provisions, reduction in cumulative voting rights, or anti-greenmail provisions).

EMPIRICAL ANALYSIS

The efficient capital market theory provides a framework for the empirical testing of our hypotheses (Bettis, 1983). We study stock price changes at the publication of news items relating to antitakeover amendments. Methodologies based on the market model using ordinary least squares (OLS) and using standard parametric tests are well-specified under a variety of conditions for daily stock return data (Brown & Warner, 1980, 1985) and are utilized here.

Stockholder wealth effects of the adoption of antitakeover amendments are tested by considering the equity value impact at the time of the antitakeover amendment proposal. The proxy statement mailing date is utilized as the best available estimate of the date of the first public announcement of antitakeover amendment consideration (Jarrell & Poulsen, 1987).

Our sample of firms proposing antitakeover amendments is derived from the Investor Responsibility Research Center (Rosenbaum, 1987, 1989). Our sample includes 379 firms adopting

483 antitakeover amendments for the 1984-1988 period (Sundaramurthy, 1992). This large sample should reduce the level of statistical noise in measuring stock returns. The security market rates of return utilized in testing were taken from the CRSP (Center for Research in Security Prices, University of Chicago) daily file for firms listed on the New York Stock Exchange, the American Stock Exchange and the National Association of Security Dealers.

We expect any resulting changes in stock prices, due to the perceived effect of antitakeover amendments, to occur immediately around the proxy mailing date. We chose an event window of 50 days before the proxy mailing date (-50) to 10 days following the proxy mailing date (+10). An average of 27 trading days (and a median of 24) separates the board meeting date (when an amendment is passed) from the proxy mailing date (Linn & McConnell, 1983). Although it is against SEC rules to solicit actively votes before the proxy mailing date, the possibility remains that the board decision to adopt antitakeover amendments is leaked to some market participants. The market returns in the -40 to -20 interval roughly surround the board meeting date. We chose 50 days before the proxy mailing date to ensure the inclusion of the board meeting date. We chose 10 days after the proxy mailing date as a sufficient time period for the market to react fully to the antitakeover amendment provisions.

The statistical tests presented below consider the estimation of the market-price impact associated with public announcement of proposed antitakeover amendments. We utilize capital market residual analysis techniques (Fama, Fisher, Jensen & Roll, 1969). If we assume that security returns have a multivariate normal distribution, a single factor model consistent with the capital asset pricing model (Lintner, 1965; Sharpe 1964) can be formulated for time-event studies. Therefore, the statistical tests described below entail a joint hypothesis of market efficiency, the capital asset pricing model, and the effects of antitakeover amendments.

Specifically, the market model is assumed to be a valid representation of the stochastic process which generates returns for security j in time period t:

$$\tilde{R}_{jt} = \alpha_j + \beta_j \tilde{R}_{mt} + \tilde{\epsilon}_{jt} \qquad (1)$$

where

$\tilde{R}_{jt}$ = stochastic return on security j over time period t

$\tilde{R}_{mt}$ = stochastic return on a market portfolio of common stocks over time period t, and

$\tilde{\epsilon}_{jt}$ = disturbance term for security j at time period t which is assumed to be normally distributed with zero mean, serially uncorrelated and has constant variance over time.

According to the market model, each security's period t return is expressed as a linear function of the corresponding time period's return on the market portfolio plus a random error term which reflects security specific effects.

The market model is implemented by computing ex-post abnormal returns for each security as

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt}) \qquad (2)$$

where R_{jt} and R_{mt} are the observed returns for security j and the market portfolio, respectively, in time period t relative to the event date of interest.

The security specific parameters α_j and β_j are estimated over a period of 110 days (-160 to -51) preceding the event date (Linn & McConnell, 1983). To reduce the impact of random estimation errors, portfolios are formed in event time such that each daily abnormal return is an equally weighted average of individual securities' abnormal returns for that common event date,

$$\overline{AR}_t = \sum_{j=1}^{N} AR_{jt} / N,$$

where N is the number of securities in the portfolio on event date t. Cumulative average abnormal returns are computed as:

$$CAR_t = \sum_{k=-50}^{t} \overline{AR}_k ,$$

where t = -50 through +10.

To determine the statistical significance of the average abnormal returns, we employed a parametric mean test as described in Linn and McConnell (1983). The statistic used to test the null hypothesis is computed as

$$Z = \overline{\overline{AR}}_t \; / \; S(\overline{\overline{AR}}), \qquad (3)$$

where $$\overline{\overline{AR}}_t = 1/N \left(\sum_{j=1}^{N} \hat{AR}_{jt} \right)$$

$$S(\overline{\overline{AR}}) = \left(T\text{-}2/ (N (T - 4)) \right)^{1/2}$$

and $$\hat{AR}_{jt} = AR_{jt} \; / \; S_t(AR_j)$$

where

$$S_t(AR_j) = \left(S_j^2 \left(1 + 1/T + (R_{mt} - \overline{R}_m)^2 \; / \; \sum_{t=1}^{T} (R_{mt} - \overline{R}_m)^2 \right) \right)^{1/2}$$

and

S_j^2 = residual variance from the ordinary least squares estimation of the market model for security j

$\overline{R}_m$ = average return on the market portfolio computed over the same event period used to estimate the market model for security j

T = total number of days in the interval used to estimate the market model, and

N = number of securities in the portfolio of interest.

The Z-statistic in (3) is distributed approximately unit normal for large N.

The test statistic of the null hypothesis that the cumulative average residual (CAR) is equal to zero is computed as

$$Z_t = \overline{CAR}_t \; / \; S(\overline{\overline{AR}}), \qquad (4)$$

where

$$\overline{CAR}_t = (1/N \sum_{j=1}^{N} \hat{CAR}_j)$$

$$\hat{CAR}_j = (\sum_{t=1}^{T} \hat{AR}_{jt}) / (T)^{1/2}$$

The Z-statistic in (4) is distributed approximately unit normal for large N.

RESULTS

Results of the stock price reaction of the nonoperating antitakeover amendments that require stockholder approval (supermajority, classified board, fair price, reduction in cumulative voting, and anti-greenmail) are presented in Table 2 and Figure 1, and results of the adoption of poison pill provisions (an operating antitakeover amendment that does not require stockholder approval) are presented in Table 3 and Figure 2. These results provide a test of the first hypothesis, that stockholders are likely to react negatively to the adoption of each and every antitakeover amendment.

Table 2 and Figure 1 present sample average and cumulative average abnormal rates of return for the event-time surrounding the proxy mailing date for nonoperating antitakeover amendments that do not require stockholder approval. For the event window (-50, +10), the cumulative average abnormal return (CAR) over the 61 day period decreased by 2.4 percent. The decrease in the CAR is significantly different from zero at the 0.01 level (see Figure 1) using a two-tailed test. The result is consistent with the managerial entrenchment hypothesis.[8]

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[8] Formally, the hypotheses which we are testing are:

$H_0 : CAR_{10} = 0$ Null hypothesis of no stockholder wealth effect
$H_{1A} : CAR_{10} > 0$ Supports the stockholder wealth hypothesis
$H_{1B} : CAR_{10} < 0$ Supports the managerial entrenchment hypothesis

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Insert Table 2 about here

Table 3 and Figure 2 present the corresponding empirical results for the poison pill provisions. The CAR for the period (-50, +10) is -2.7 percent, which is statistically significant at the 0.01 level using a two-tailed t-test and is again consistent with Hypothesis 1.

Insert Table 3 about here

Several methodological issues concerning event studies must be addressed (Brown & Warner, 1985). First, a pre-event period was chosen to estimate the parameters α and β in the market model. These parameters may change due to the event, thus yielding potentially biased and inefficient estimates for the market model. Changes in the parameter values are generally not a major concern when events are nonoperating, that is, when the events do not change the asset structure (business risk) or the capital structure (financial risk) of a firm. However, two situations may cause pre-event estimates of α's and β's to be unreliable. First, if rumors about a takeover of the firm circulated before the board meeting date (rumors which may have lead to the proposal of the antitakeover amendment), the α's in the pre-event period may be overestimated due to the positive stock impact of the rumor. Second, if information of the proposal were "leaked" to some market participants the α's may be overestimated or underestimated, depending on the impact of the impending proposal. We therefore replicated our event study test using a post-event estimation period (+11 to +120) in place of our pre-event estimation period (-160 to -51) to estimate α and β, and still found significantly negative CAR's which is consistent with our earlier results supporting the managerial entrenchment hypothesis.

Second, correlation among securities due to clustering of events in calendar time violates the OLS assumption of contemporaneously uncorrelated error terms. In this study, cross-correlation is

not viewed as a problem since the event dates are scattered through the years which we study. In addition, the problem of non-synchronous trading (Scholes & Williams, 1977) was not considered a major problem due to the long event window.

Third, a consistent choice of market index is needed in order to properly interpret the results (Brown & Warner, 1985). Thus, the equally-weighted market index was used in order to be consistent with the equal weighting of the firms in the event-study portfolio.

Finally, we tested for increased variance around the event date which would violate the OLS assumption of constant variance and would not allow standard interpretations in the t-tests for significance. We could not reject the hypothesis that the residuals from the OLS regression (1) above had the same variance before and after the event date, implying constant variance is a reasonable assumption.

In order to test for differences between the two groups, we compare the 61 day period mean CARs for the two groups (non-operating amendments that require stockholder approval and operating amendments that do not require stockholder approval) and find that the difference is not significant. This result is contrary to Hypothesis 2, which predicted that stockholders are likely to react more negatively to the adoption of operating amendments that do not require stockholder approval than to the adoption of non-operating amendments that require stockholder approval.

To further explore differences among amendments, we examine stock price reactions to each of the studied amendments separately and these results are summarized in Table 4. Supermajority amendments resulted in insignificant positive stockholder wealth effects. Consistent with our result, Mahoney and Mahoney (1992) for a larger sample of 118 amendments for the 1980-1988 period found insignificant negative stockholder wealth effects. The classified board provision resulted in insignificantly negative CARs. Mahoney and Mahoney (1992) for a larger sample of 192 amendments for the 1980-1988 period found significantly negative CARs.

Fair price provisions lead to significantly negative stockholder wealth effects, contrary to the results of Jarrell and Poulsen's (1987) study that found an insignificant negative impact for fair-price provisions adopted between 1979-1985. The results of our study which are based on fair price provisions adopted between 1984-1988 in conjunction with results of Jarrell and Poulsen's (1987) study indicate a negative trend over time in stockholder reactions. Stockholders' more negative reaction to fair price requirements adopted in the latter part of the 1980s may be due to learning by stockholders.

Reduction in cumulative voting and anti-greenmail measures lead to marginally significant negative returns and our results are consistent with previous empirical findings (Bhagat & Brickley, 1984; Eckbo, 1990). As empirical studies have shown that greenmail is not in stockholders' interests (Bradley & Wakeman, 1983; Dann & DeAngelo, 1983), at first glance, anti-greenmail provisions would be expected to increase stockholder wealth. However, even though the greenmail transaction itself harms stockholders, the net returns to stockholders resulting from the initial repurchase announcement are positive (Mikkelson & Ruback, 1985). Thus, the effect of the adoption of anti-greenmail on stockholder wealth may be negative and this is what we find. A second explanation for the negative reaction to anti-greenmail is that firms tend to bundle anti-greenmail with other antitakeover amendments (Bhagat & Jefferis, 1991). Poison pills, considered most harmful to stockholders, led to a significantly negative stockholder wealth effect and is consistent with previous findings (Malatesta & Walkling, 1988; Ryngaert, 1988). The negative reaction to five of the six considered amendments again provides strong support for the entrenchment view presented in Hypothesis 1.

Insert Table 4 about here

We conducted a further test of Hypothesis 2 by comparing the mean CARs ten days after the event for each of the nonoperating amendments requiring stockholder approval with CARs for poison pill provisions. These results are presented in Table 5. We expected the mean cumulative average returns of poison pills to be significantly more negative than the cumulative returns of each of the nonoperating amendments. Mean cumulative average returns of poison pills were significantly more negative than the returns of supermajority provisions, in partial support of Hypothesis 2. However, contrary to our expectation, stockholders perceived reduction in cumulative voting more negatively than adoption of poison pill provisions[9]. There was not a significant stockholder wealth effect difference between each of the other nonoperating amendments (classified boards, fair price, anti-greenmail) and poison pill provisions. Thus, distinctions between operating and nonoperating amendments, and between requirements of stockholder approval and non-stockholder approval do not appear to be critical dimensions that influence stockholder reactions to antitakeover amendments.

Insert Table 5 about here

CONCLUSIONS

The purpose of this study is to examine the impact of the adoption of antitakeover amendments in the 1980s on stockholder value. We also test the proposition that "different amendments may have different impacts" (Mallette, 1991: 783). We use Walsh and Seward's (1990) framework to categorize six antitakeover amendments into two groups, those that are predicted to be the most harmful to stockholders and those that are predicted to be the least harmful to stockholders. We examine whether differential wealth effects exist.

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[9] Pairwise comparison between each of the nonoperating amendments' mean cumulative average returns indicate that stockholders reacted more negatively to reduction of cumulative voting than to the adoption of fair price provisions (-1.646; $p < .1$) or to classified boards (2.17; $p < .05$).

Our empirical findings indicate that stockholders react negatively to the adoption of both groups of antitakeover amendments. The observed stock-price reaction to antitakeover amendments has at least three components: a negative component associated with the reduced probability of a successful offer, a positive component associated with a lowering of the costs of negotiating higher-valued offers, and a positive component associated with additional information about managers' expectations of a takeover. Our empirical results indicate that the negative component outweighs the sum of the positive components in both groups.

Negative stockholder reactions support the managerial entrenchment view espoused by the U.S. Securities and Exchange Commission (1985), and by legal scholars such as Easterbrook and Fischel (1981) and Gilson (1981, 1982). Protective responses while serving the interests of incumbent managements are dysfunctional from the standpoint of stockholders and the system as a whole (Cary, 1969; Williamson, 1975: 160-161).

Our results are particularly strong since the tests are biased against the managerial entrenchment hypothesis. The proposal of antitakeover amendments may provide information, signaling an increased probability that the firm may currently be a takeover target. The signal of a potential bidder to the target stockholders empirically leads to an increase in the stock price. Thus, the significant decline in the stock price around the event date of the antitakeover amendments, despite the positive signaling effect, strengthens our interpretation of the evidence in support of the managerial entrenchment hypothesis.

However, it is important to note that although we found a negative average impact, this does not preclude the possibility that some firms' antitakeover amendments actually benefit stockholders. Our test is properly interpreted as providing evidence concerning the average effect of antitakeover amendment proposals on stockholder wealth. With this important caveat clearly in mind, we have

been persuaded by the empirical evidence that antitakeover amendments are generally detrimental to stockholders.

With respect to differential wealth effects of antitakeover amendments, our results indicate no significant difference in stockholder reaction to operating amendments that do not require stockholder approval and to nonoperating amendments that require stockholder approval. Both sets of amendments are viewed by stockholders as equally negative. These results indicate that stockholders do not discriminate between amendments on the basis of the dimensions we studied.

Based on our study it is premature to reject the importance of the two dimensions proposed by Walsh and Seward (i.e, operating versus nonoperating amendments and stockholder approval versus non-stockholder approval). Further research efforts might consider whether informed investors (e.g., institutional investors) discriminate on the basis of operating versus nonoperating amendments and amendments that require stockholder approval versus those that do not require stockholder approval. Also, the presence of other governance mechanisms such as an independent board, may affect stockholders' perceptions of different amendments and Walsh and Seward's (1990) dimensions. Moreover, although these dimensions were not perceived differently by stockholders in the 1984-1988 time period, these dimensions may be important predictors of other consequences of antitakeover amendments, such as probability of receiving takeover bids, future competitive position, and subsequent firm performance.

Results of our analyses considering each amendment separately indicate that some variance in stockholder reaction to different antitakeover amendments exist. Stockholders reacted more negatively to restriction of cumulative voting when compared to other amendments such as fair price, classified boards and poison pill provisions. Although it is impossible to make firm conclusions based on these results, since our sample size was small in the case of some amendments (i.e., supermajority, reduction in cumulative voting and anti-greenmail), these results provide preliminary

evidence that stockholders discriminate between amendments. Future investigations of antecedents or consequences of antitakeover amendment adoption may benefit by considering each amendment individually, similar to Davis's (1991) study of poison pill provisions, in addition to understanding them as a group.

In summary, our study provides very strong support for the management entrenchment view of amendment adoption, and does not provide support for systematic differences in stockholder reactions to amendments classified on the basis of Walsh and Seward's (1990) framework. However, some evidence for differences in stockholder reaction to individual amendments exists. Can all antitakeover amendments be treated equally? Probably not. While all antitakeover amendments entrench managers, they differ in magnitude of their detrimental effect on stockholder wealth. The score for poison pills may be "Management 42, Stockholders 0" (Kesner & Dalton, 1985), the score for classified board (and other) amendments may be "Management 28, Stockholders 14".

TABLE 1

Antitakeover Defenses

	Operating	**Nonoperating**
Stockholder Approval Required	1 Example: Dual-class recapitalizations	2 1. **Supermajority amendments** 2. **Classified Boards** 3. **Fair price amendments** 4. **Reduction in cumulative voting rights** 5. **Anti-greenmail**
No Stockholder Approval Required	3 1. **Poison pills**	4 Example: Golden parachutes

Mechanisms intended to restrict transfer of managerial control (adapted from Walsh & Seward,1990: 438). This paper focuses on amendments in cells 2 and 3.

TABLE 2

Supermajority, Classified Boards, Fair price, Reduction in Cumulative Voting, and Anti-greenmail

Daily abnormal returns surrounding the event date for the proxy mailing of one or more of the 5 amendments. (N=184)

Event date	Average residual	CAR	Event date	Average residual	CAR
-50	-0.0009	-0.0009	-15	0.0015	-0.0147 *
-40	0.0003	-0.0058 *	-14	-0.0012	-0.0159 *
-39	0.0014	-0.0044 *	-13	-0.0010	-0.0169 **
-38	0.0003	-0.0041 *	-12	0.0020	-0.0149 *
-37	-0.0016	-0.0057 *	-11	0.0004	-0.0145 *
-36	-0.0039 **	-0.0096 **	-10	0.0008	-0.0137 *
-35	-0.0021	-0.0117 **	-09	0.0001	-0.0136 *
-34	-0.0031 **	-0.0148 **	-08	0.0000	-0.0135 *
-33	-0.0013	-0.0162 **	-07	-0.0003	-0.0139 *
-32	0.0019	-0.0143 **	-06	-0.0010	-0.0149 *
-31	-0.0006	-0.0149 **	-05	-0.0009	-0.0158 *
-30	-0.0022 *	-0.0171 **	-04	-0.0020	-0.0178 *
-29	-0.0002	-0.0172 **	-03	-0.0009	-0.0187 *
-28	0.0007	-0.0166 **	-02	-0.0004	-0.0191 *
-27	0.0012	-0.0154 **	-01	-0.0015	-0.0207 **
-26	0.0002	-0.0152 **	00	-0.0020	-0.0227 **
-25	-0.0012	-0.0164 **	+01	-0.0007	-0.0234 **
-24	0.0018	-0.0145 **	+02	-0.0024	-0.0257 **
-23	-0.0008	-0.0154 **	+03	-0.0004	-0.0261 **
-22	0.0001	-0.0153 **	+04	0.0005	-0.0256 **
-21	-0.0004	-0.0156 **	+05	0.0007	-0.0250 **
-20	-0.0007	-0.0164 **	+06	0.0005	-0.0245 **
-19	-0.0016	-0.0179 **	+07	0.0008	-0.0236 **
-18	-0.0006	-0.0186 **	+08	-0.0025 *	-0.0261 **
-17	0.0008	-0.0177 **	+09	0.0005	-0.0267 **
-16	0.0015	-0.0162 **	+10	0.0028 *	-0.0239 **

* indicates that the average of the standardized residuals is significantly different from zero at the 5% level of significance using a two-tailed test.

** indicates that the average of the standardized residuals is significantly different from zero at the 1% level of significance using a two-tailed test.

TABLE 3

POISON PILLS

Daily abnormal returns surrounding the event date for the proxy mailing for all poison pill provisions. (N=195)

Event date	Average residual	CAR	Event date	Average residual	CAR
-50	-0.0015	-0.0015	-15	0.0026 **	-0.0078
-40	-0.0015	-0.0028	-14	0.0011	-0.0067
-39	-0.0033 **	-0.0061	-13	0.0003	-0.0064
-38	-0.0003	-0.0065	-12	-0.0013	-0.0077
-37	-0.0016	-0.0081	-11	-0.0023 *	-0.0101
-36	0.0004	-0.0077	-10	-0.0006	-0.0107
-35	-0.0009	-0.0086	-09	-0.0008	-0.0115
-34	-0.0016	-0.0102 *	-08	-0.0020	-0.0135
-33	-0.0009	-0.0111 *	-07	0.0008	-0.0127
-32	-0.0005	-0.0116 *	-06	-0.0035 **	-0.0162 *
-31	-0.0012	-0.0128 *	-05	-0.0006	-0.0168 *
-30	-0.0001	-0.0129 *	-04	-0.0021	-0.0189 *
-29	0.0001	-0.0127 *	-03	-0.0003	-0.0191 *
-28	0.0015	-0.0113	-02	-0.0004	-0.0196 *
-27	-0.0005	-0.0118	-01	-0.0021	-0.0216 *
-26	-0.0006	-0.0124	00	0.0008	-0.0208 *
-25	0.0003	-0.0121	+01	-0.0012	-0.0220 *
-24	0.0020	-0.0101	+02	-0.0017	-0.0237 *
-23	0.0004	-0.0097	+03	-0.0002	-0.0239 *
-22	-0.0003	-0.0101	+04	-0.0006	-0.0245 **
-21	0.0016	-0.0085	+05	0.0003	-0.0242 **
-20	0.0006	-0.0079	+06	0.0001	-0.0241 **
-19	-0.0013	-0.0092	+07	-0.0006	-0.0247 **
-18	-0.0004	-0.0096	+08	-0.0013	-0.0260 **
-17	-0.0004	-0.0099	+09	-0.0011	-0.0271 **
-16	-0.0004	-0.0104	+10	-0.0001	-0.0272 **

* indicates that the average of the standardized residuals is significantly different from zero at the 5% level of significance using a two-tailed test.

** indicates that the average of the standardized residuals is significantly different from zero at the 1% level of significance using a two-tailed test.

TABLE 4

Cumulative Average Abnormal Residuals 10 days after the event (CAR_{10}) for each of the six antitakeover provisions.

Provisions by type	Sample Size	CAR_{10}	$t(CAR_{10})$
Non-operating and Require Stockholder Approval			
Supermajority	20	0.0292	0.3418
Classified board	104	-0.0140	-0.8612
Fair price	110	-0.0282	-2.1147
Reduction in cumulative voting	21	-0.0590	-1.6668
Anti-greenmail	33	-0.0428	-1.6249
Operating and Do Not Require Stockholder Approval			
Poison Pills	195	-0.0272	-2.9298

TABLE 5

Comparison of Mean Cumulative Average Abnormal Residuals (10 days after the event date) of each of the nonoperating amendments requiring stockholder approval with that of poison pill provisions.

Amendment	Difference in CAR_{10}	t-stat	p-value
Supermajority	0.0564	2.03	0.046 *
Reduction of cumulative voting	-0.0318	-2.251	0.025 **
Classified boards	0.0132	1.082	>0.25
Fair Price	-0.0010	-0.0084	>0.25
Anti-greenmail	-0.0156	-1.183	0.24

* = significant at the 10% level of significance using a two-tailed test.

** = significant at the 5% level of significance using a two-tailed test.

FIGURE 1

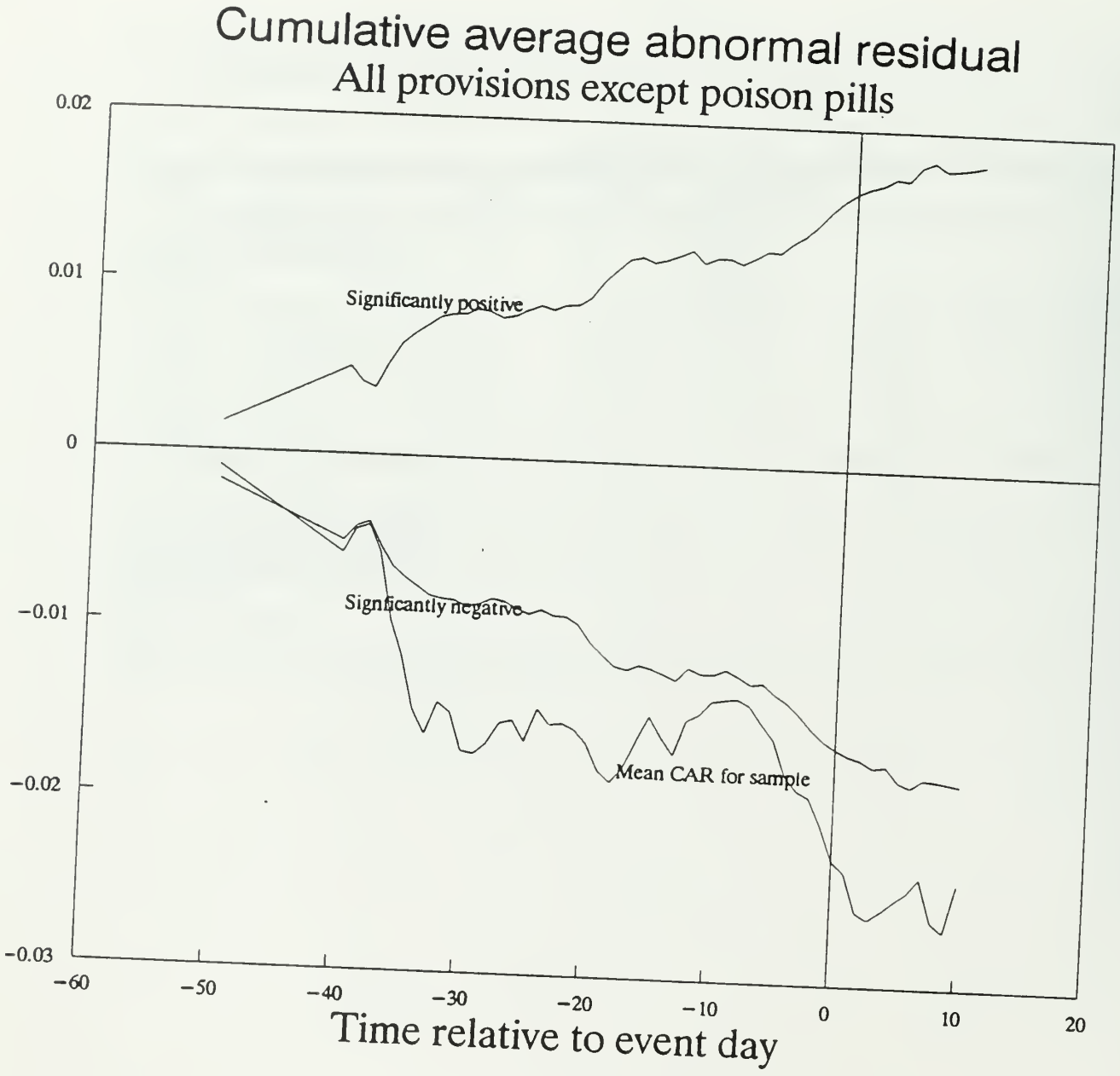
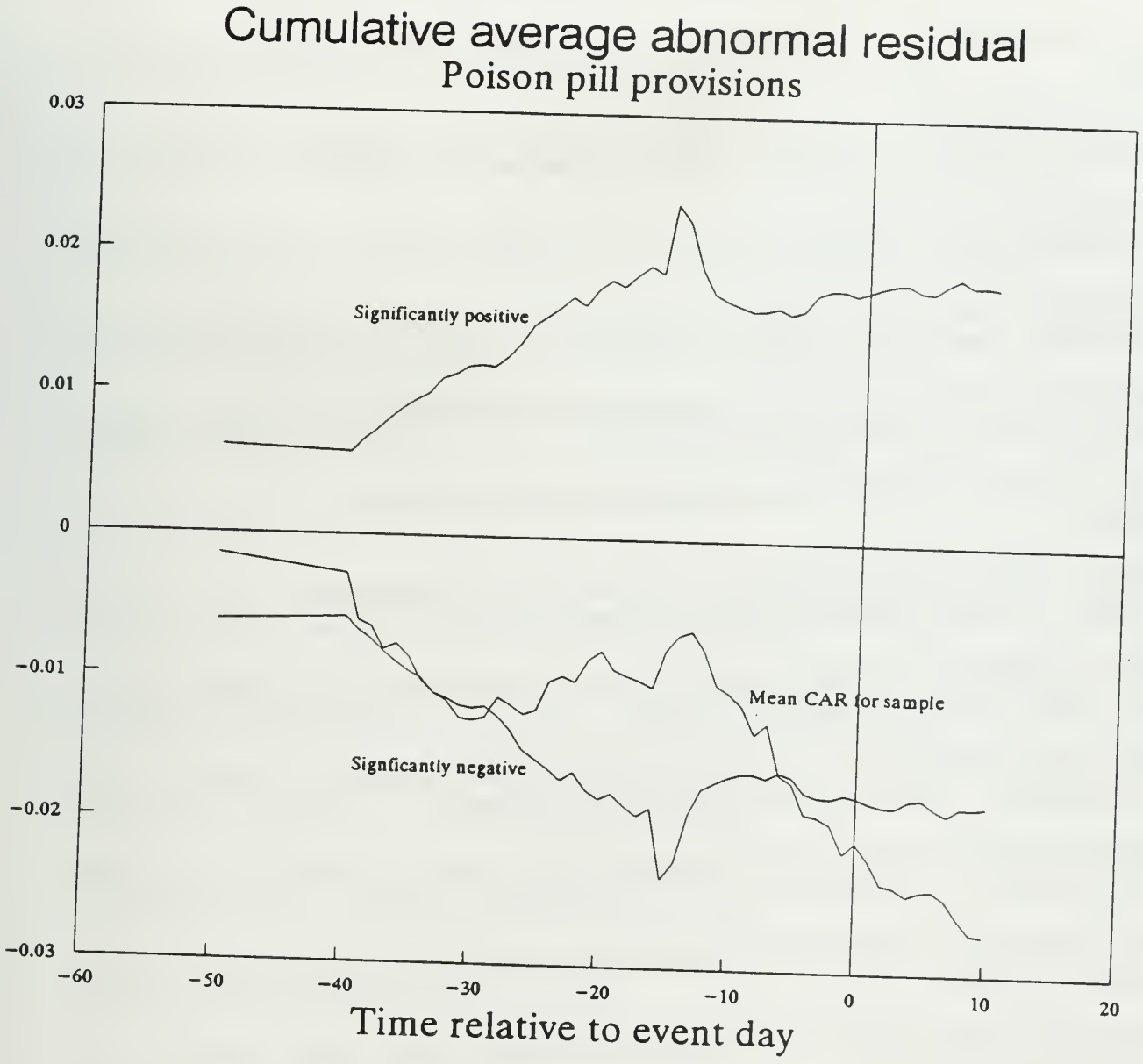

Cumulative average abnormal residual
All provisions except poison pills
0.02
0.01
0
−0.01
−0.02
−0.03
Significantly positive
Significantly negative
Mean CAR for sample
−60
−50
−40
−30
−20
−10
0
10
20
Time relative to event day

FIGURE 2


Cumulative average abnormal residual
Poison pill provisions
0.03
0.02
0.01
0
−0.01
−0.02
−0.03
Significantly positive
Mean CAR for sample
Signficantly negative
−60
−50
−40
−30
−20
−10
0
10
20
Time relative to event day

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